

REMARKS

All of the pending claims in this application have been rejected by the Office Action dated April 10, 2003. In response to the Office Action, applicants submit this response and respectfully request reconsideration of the application. Applicants also note that their prior response, dated January 21, 2003 to a previous Office Action, pointed out that both the references relied upon individually or in combination, to reject the pending claims did not teach, disclose or suggest a “normally-on” bidirectional transistor of the claimed invention of independent claim 1, and hence could not be used to reject either claim 1 or any of the claims dependent upon it. Although, the Office Action has elected to not explicitly respond to this observation, applicants renew their request that this distinction be taken into consideration in evaluating all of the pending claims.

Rejection of claims 1-3, 7, and 8 under Section 102(b) should be withdrawn

Claims 1-3, 7 and 8 were rejected by the Office Action under 35 U.S.C. 102 (b) as being anticipated by U.S. Patent No. 4,705, 967 issued to Vasile (hereinafter “Vasile”). Of the allegedly anticipated claims, claim 1 and claim 7 are independent with the remaining allegedly anticipated claims being dependent upon them.

This rejection should be withdrawn because Vasile does not disclose or suggest all of the elements of each of the aforementioned independent rejected claims as is required for making or maintaining a rejection under 35 U.S.C. § 102(b).

Vasile discloses a circuit for performing multifunctional operation comprising a floating FET having symmetrical source and drain characteristics. Specifically, Vasile discloses that the source and drain of the floating FET are connected to a center-tapped balun, which may receive an unbalanced input and present it as a balanced input to the floating FET.

An additional input may be provided at the gate of the floating FET, which is also biased to avoid pinch-off conditions. In other words, the FET disclosed in Vasile must be normally-on to function. In sharp contrast, the claimed invention requires the transistor to be “normally-off.”

Vasile’s requirement that the bidirectional transistor be normally-on is directly in conflict with the claimed invention. Contrary to the Office Action’s interpretation of Figures 1 and 5, as disclosing “a balanced transient signal” causes the “transistor to become conductive,” Vasile itself provides a very different interpretation of Figure 5. Figure 5 depicts a particular configuration of Figure 1, which configuration has been apparently identified by the Office Action for rejecting all of the independent pending claims.

Vasile expressly notes that the amplitudes of the input signals are understood to be small in sharp contrast to the effects of a transient overvoltage used in describing the claimed invention in claim 1. See, e.g. col. 7, lines 25-27. This is not surprising since the circuit depicted in Figure 5 actually integrates the product of the input signals (received at the gate and the balun) as shown in the figure itself (and its description) to generate a cumulative output. In light of this stated aim, it is not surprising that unlike the claimed invention, where the gate of the bidirectional transistor is biased to ensure that the transistor is normally off, Vasile biases the gate to avoid having the transistor normally off by avoiding pinch-off conditions. See, e.g., column 7, lines 20-25.

Pending independent claims 1 and 7 both expressly require “a balanced overvoltage transient signal” that “causes the bidirectional transistor to become conductive.” Since, Vasile’s transistor is already conductive, it cannot meet this limitation. Indeed, rather than anticipating or disclosing embodiments similar to the claimed invention, Vasile instead

plainly fails to disclose this limitation or, for instance, the limitation, in claim 1, of a “normally-off” bidirectional transistor. Therefore, Vasile teaches away from the claimed invention since making Vasile’s transistor normally-off will defeat its stated goal of providing a cumulative output. As a result the rejection under 35 U.S.C. § 102(b) of the independent claims 1 and 7 and of any claims dependent upon them, including claims 2-3 and 8, must be withdrawn.

Rejection of claims 4 and 5 under 35 U.S.C. § 103(a) should be withdrawn

The Office Action also rejected claim 4 and 5 for being obvious over the cited art. Claim 4, dependent upon claim 1, stands rejected over Vasile under 35 USC § 103(a) while claim 5, also dependent upon claim 1, stands rejected by the Office Action under 35 U.S.C. § 103(a) over Vasile in view of U.S. Patent No. 5,697,092 issued to Maurant et al.(hereinafter “Maurant”). Applicants thank the Examiner for not maintaining the 35 U.S.C. § 102(b) rejections based on Maurant in response to Applicants response to a previous Office Action.

As demonstrated earlier, Vasile does not disclose or suggest all of the limitations of claim 1. These limitations, which are incorporated into each of the dependent claims 4 and 5, are also not taught, disclosed or suggested by Maurant. Maurant, for instance, also lacks the teaching of a bidirectional transistor, which was also pointed out by the applicants in their response to the previous Office Action.

Making or maintaining a rejection of a claim as being obvious under § 103(a) requires that the relied upon references teach all of the limitations of the claimed invention along with a motivation to combine the references within the record. Vasile and Maurant, individually or in combination fail to teach, disclose or suggest all of the limitations of the claimed invention,. Further, in view of Vasile teaching away from the claimed invention it is

respectfully requested that the § 103(a) rejections of claims 4 and 5 based on the combination of Vasile with Mourant be withdrawn.

CONCLUSION

In light of the above, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any questions or comments concerning this submission, or any aspect of the application, the Examiner is respectfully invited to call the undersigned at the phone number listed below.

No fee other is believed due at this time. Should any fees be required, please charge such fees to Pennie & Edmonds LLP Account No. 16-1150.

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Respectfully submitted,

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